



[4910-13-P]

DEPARTMENT OF TRANSPORTATION

Federal Aviation Administration

14 CFR Part 39

[Docket No. FAA-2012-1161; Directorate Identifier 2011-NM-277-AD]

RIN 2120-AA64

Airworthiness Directives; The Boeing Company Airplanes

AGENCY: Federal Aviation Administration (FAA), DOT.

ACTION: Notice of proposed rulemaking (NPRM).

SUMMARY: We propose to supersede an existing airworthiness directive (AD) that applies to certain The Boeing Company Model 737-200, -200C, -300, -400 and -500 series airplanes. The existing AD currently requires a one-time mid-frequency eddy current (MFEC) inspection, a low frequency eddy current (LFEC) inspection, and a detailed inspection for damage or cracking of stringer S-4L and S-4R lap joints and stringer clips between body station (BS) 540 and BS 727, and follow-on inspections and repair if necessary. Since we issued that AD, we have received reports of cracking of the lap joint lower row. This proposed AD would instead require repetitive external eddy current inspections for cracking of certain fuselage crown lap joints and corrective actions; internal eddy current and detailed inspections for cracking of certain fuselage crown lap joints, and repair if necessary; and detailed inspections of certain stringer clips, and replacement with new stringer clips if necessary. This proposed AD would also add airplanes to the applicability. We are proposing this AD to detect and correct cracking of the fuselage lap joints, which could result in sudden decompression of the airplane.

DATES: We must receive comments on this proposed AD by [INSERT DATE 45 DAYS AFTER DATE OF PUBLICATION IN THE FEDERAL REGISTER].

ADDRESSES: You may send comments, using the procedures found in 14 CFR 11.43 and 11.45, by any of the following methods:

- Federal eRulemaking Portal: Go to <http://www.regulations.gov>. Follow the instructions for submitting comments.
- Fax: 202-493-2251.
- Mail: U.S. Department of Transportation, Docket Operations, M-30, West Building Ground Floor, Room W12-140, 1200 New Jersey Avenue SE., Washington, DC 20590.
- Hand Delivery: Deliver to Mail address above between 9 a.m. and 5 p.m., Monday through Friday, except Federal holidays.

For service information identified in this AD, contact Boeing Commercial Airplanes, Attention: Data & Services Management, P. O. Box 3707, MC 2H-65, Seattle, WA 98124-2207; telephone 206-544-5000, extension 1; fax 206-766-5680; Internet <https://www.myboeingfleet.com>. You may review copies of the referenced service information at the FAA, Transport Airplane Directorate, 1601 Lind Avenue SW, Renton, WA. For information on the availability of this material at the FAA, call 425-227-1221.

Examining the AD Docket

You may examine the AD docket on the Internet at <http://www.regulations.gov>; or in person at the Docket Management Facility between 9 a.m. and 5 p.m., Monday through Friday, except Federal holidays. The AD docket contains this proposed AD, the regulatory evaluation, any comments received, and other information. The street address for the Docket Office (phone: 800-647-5527) is in the ADDRESSES section. Comments will be available in the AD docket shortly after receipt.

FOR FURTHER INFORMATION CONTACT: Wayne Lockett, Aerospace Engineer, Airframe Branch, ANM-120S, FAA, Seattle Aircraft Certification Office, 1601 Lind

Avenue SW., Renton, WA 98057-3356; phone: 425-917-6447; fax: 425-917-6590; email: wayne.lockett@faa.gov.

SUPPLEMENTARY INFORMATION:

Comments Invited

We invite you to send any written relevant data, views, or arguments about this proposed AD. Send your comments to an address listed under the ADDRESSES section. Include “Docket No. FAA-2012-1161; Directorate Identifier 2011-NM-277-AD” at the beginning of your comments. We specifically invite comments on the overall regulatory, economic, environmental, and energy aspects of this proposed AD. We will consider all comments received by the closing date and may amend this proposed AD because of those comments.

We will post all comments we receive, without change, to <http://www.regulations.gov>, including any personal information you provide. We will also post a report summarizing each substantive verbal contact we receive about this proposed AD.

Discussion

On April 18, 2003, we issued AD 2003-08-15, Amendment 39-13128 (68 FR 20341, April 25, 2003), for certain The Boeing Company Model 737-200, -200C, -300, -400 and -500 series airplanes. That AD requires a one-time MFEC, LFEC, and detailed inspection for damage or cracking of stringer S-4L and S-4R lap joints and stringer clips between BS 540 and BS 727, and follow-on inspections and repair if necessary. That AD resulted from a report indicating that, during a walk-around inspection on a Model 737-200 series airplane with 60,333 total flight cycles, a 23-inch-long crack was found in the lower row of the stringer S-4L lap joint between BS 616 and BS 639. Cracking was also found between the tear straps and in the skin locations common to the tear straps. Additionally, we received a report of significant cracking on stringer S-4R of the lap joint

between BS 600 and BS 727 on a Model 737-300 series airplane having 52,400 total flight cycles. We issued that AD to detect and correct cracking of the fuselage lap joints, which could result in sudden decompression of the airplane.

Actions Since Existing AD 2003-08-15, Amendment 39-13128 (68 FR 20341, April 25, 2003) Was Issued

Since we issued AD 2003-08-15, Amendment 39-13128 (68 FR 20341, April 25, 2003), we have received reports of lap joint lower row cracking on airplanes that were not subject to inspections in AD 2002-07-08, Amendment 39-12702 (67 FR 17917, April 12, 2002). We are proposing to supersede AD 2003-08-15 to provide inspections for these airplanes.

Relevant Service Information

We reviewed Boeing Alert Service Bulletin 737-53A1255, Revision 2, dated August 7, 2012. For information on the procedures and compliance times, see this service information at <http://www.regulations.gov> by searching for Docket No. FAA-2012-***.

Other Relevant Rulemaking

These crown lap joint inspections are currently also contained in the following service bulletins, which are mandated by AD 2002-07-08, Amendment 39-12702 (67 FR 17917, April 12, 2002):

- Boeing Service Bulletin 737-53A1177, Revision 4, dated September 2, 1999;
 - Boeing Service Bulletin 737-53A1177, Revision 5, dated February 15, 2001;
- and
- Boeing Service Bulletin 737-53A1177, Revision 6, dated May 31, 2001.

Boeing chose to add the needed inspections for the airplanes not covered by AD 2002-07-08 to the service information included in AD 2003-08-15, Amendment 39-13128 (68 FR 20341, April 25, 2003), due to the large scope of changes that would be needed to revise Boeing Service Bulletin 737-53A1177, Revision 6, dated May 31, 2001.

We are considering further rulemaking to remove reference to those crown lap joint inspections from that AD.

FAA's Determination

We are proposing this AD because we evaluated all the relevant information and determined the unsafe condition described previously is likely to exist or develop in other products of the same type design.

Proposed AD Requirements

This proposed AD would retain none of the requirements of AD 2003-08-15, Amendment 39-13128 (68 FR 20341, April 25, 2003). This proposed AD would include new inspection requirements, reduce certain inspection thresholds, and add repetitive inspections. This proposed AD would also add airplanes to the applicability statement of the existing AD. This proposed AD would require accomplishing the actions specified in the service information described previously.

The phrase "related investigative actions" might be used in this proposed AD. "Related investigative actions" are follow-on actions that (1) are related to the primary actions, and (2) are actions that further investigate the nature of any condition found. Related investigative actions in an AD could include, for example, inspections.

In addition, the phrase "corrective actions" might be used in this proposed AD. "Corrective actions" are actions that correct or address any condition found. Corrective actions in an AD could include, for example, repairs.

Costs of Compliance

We estimate that this proposed AD affects 307 airplanes of U.S. registry.

We estimate the following costs to comply with this proposed AD:

Estimated costs

Action	Labor cost	Parts cost	Cost per product	Number of Airplanes	Cost on U.S. operators
Internal inspection	Up to 303 work-hours X \$85 per hour = \$25,755	\$0	\$25,755	307	\$7,906,785
External inspection	Up to 10 work-hours X \$85 per hour = \$850	\$0	\$850	307	\$260,950

We have received no definitive data that would enable us to provide a cost estimate for the on-condition actions specified in this proposed AD.

Authority for this Rulemaking

Title 49 of the United States Code specifies the FAA's authority to issue rules on aviation safety. Subtitle I, Section 106, describes the authority of the FAA Administrator. Subtitle VII, Aviation Programs, describes in more detail the scope of the Agency's authority.

We are issuing this rulemaking under the authority described in Subtitle VII, Part A, Subpart III, Section 44701, "General requirements." Under that section, Congress charges the FAA with promoting safe flight of civil aircraft in air commerce by prescribing regulations for practices, methods, and procedures the Administrator finds necessary for safety in air commerce. This regulation is within the scope of that authority because it addresses an unsafe condition that is likely to exist or develop on products identified in this rulemaking action.

Regulatory Findings

We have determined that this proposed AD would not have federalism implications under Executive Order 13132. This proposed AD would not have a

substantial direct effect on the States, on the relationship between the national Government and the States, or on the distribution of power and responsibilities among the various levels of government.

For the reasons discussed above, I certify that this AD:

- (1) Is not a “significant regulatory action” under Executive Order 12866,
- (2) Is not a “significant rule” under the DOT Regulatory Policies and Procedures (44 FR 11034, February 26, 1979),
- (3) Will not affect intrastate aviation in Alaska, and
- (4) Will not have a significant economic impact, positive or negative, on a substantial number of small entities under the criteria of the Regulatory Flexibility Act.

List of Subjects in 14 CFR Part 39

Air transportation, Aircraft, Aviation safety, Incorporation by reference, Safety.

The Proposed Amendment

Accordingly, under the authority delegated to me by the Administrator, the FAA proposes to amend 14 CFR part 39 as follows:

PART 39 - AIRWORTHINESS DIRECTIVES

1. The authority citation for part 39 continues to read as follows:

Authority: 49 U.S.C. 106(g), 40113, 44701.

§ 39.13 [Amended]

2. The FAA amends § 39.13 by removing airworthiness directive (AD) 2003-08-15, Amendment 39-13128 (68 FR 20341, April 25, 2003), and adding the following new AD:

The Boeing Company: Docket No. FAA-2012-1161; Directorate Identifier 2011-NM-277-AD.

(a) Comments Due Date

The FAA must receive comments on this AD action by [INSERT DATE 45 DAYS AFTER DATE OF PUBLICATION IN THE FEDERAL REGISTER].

(b) Affected ADs

This AD supersedes AD 2003-08-15, Amendment 39-13128 (68 FR 20341, April 25, 2003).

(c) Applicability

This AD applies to The Boeing Company Model 737-200, -200C, -300, -400, and -500 series airplanes; certificated in any category; as specified in Boeing Alert Service Bulletin 737-53A1255, Revision 2, dated August 7, 2012.

(d) Subject

Joint Aircraft System Component (JASC)/Air Transport Association (ATA) of America Code 53, Fuselage.

(e) Unsafe Condition

This AD was prompted by reports of cracking of the lap joint lower row. We are issuing this AD to detect and correct cracking of the fuselage lap joints, which could result in sudden decompression of the airplane.

(f) Compliance

Comply with this AD within the compliance times specified, unless already done.

(g) External Crown Lap Joint Inspection and Repair

For airplanes on which the lap splice modification specified in AD 2002-07-08, Amendment 39-12702 (67 FR 17917, April 12, 2002), has not been accomplished, except as required by paragraph (l)(1) and (l)(2) of this AD: At the applicable times specified in paragraph 1.E., "Compliance," of Boeing Alert Service Bulletin 737-53A1255, Revision 2, dated August 7, 2012, do an external eddy current inspection for cracking in the crown lap joints, in accordance with the Accomplishment Instructions of Boeing

Alert Service Bulletin 737-53A1255, Revision 2, dated August 7, 2012. At the intervals specified in paragraph 1.E., “Compliance,” of Boeing Alert Service Bulletin 737-53A1255, Revision 2, dated August 7, 2012, repeat the inspections, in accordance with the Accomplishment Instructions of Boeing Alert Service Bulletin 737-53A1255, Revision 2, dated August 7, 2012. If any cracking is found in a lap joint, before further flight, repair, in accordance with the Accomplishment Instructions of Boeing Alert Service Bulletin 737-53A1255, Revision 2, dated August 7, 2012.

(h) Optional Internal Inspections for Mid-bay Fastener Locations

As an option to confirm cracks found during the inspections required by paragraph (g) of this AD, do an internal mid-frequency eddy current (MFEC) inspection for cracking in the lap joint fastener row between tear straps of the crown lap and do a detailed inspection of the lap joint lower fastener row for cracking, in accordance with the Accomplishment Instructions of Boeing Alert Service Bulletin 737-53A1255, Revision 2, dated August 7, 2012.

(i) Internal Crown Lap Joint Inspection and Repair

For airplanes on which the lap splice modification specified in AD 2002-07-08, Amendment 39-12702 (67 FR 17917, April 12, 2002) has not been accomplished: At the times specified in paragraph 1.E., “Compliance,” of Boeing Alert Service Bulletin 737-53A1255, Revision 2, dated August 7, 2012, except as required by paragraphs (l)(1) and (l)(2) of this AD, do an internal MFEC, low frequency eddy current (LFEC), and detailed inspection for cracking in the crown lap joints and stringer clips, in accordance with the Accomplishment Instructions of Boeing Alert Service Bulletin 737-53A1255, Revision 2, dated August 7, 2012.

(1) If any cracking is found in any lap joint, before further flight, repair, in accordance with the Accomplishment Instructions of Boeing Alert Service Bulletin 737-53A1255, Revision 2, dated August 7, 2012.

(2) If any cracking is found in any stringer clip, before further flight, replace the stringer clip with a new stringer clip, in accordance with the Accomplishment Instructions of Boeing Alert Service Bulletin 737-53A1255, Revision 2, dated August 7, 2012.

(3) Repeat the inspections at the intervals specified in paragraph 1.E., “Compliance,” of Boeing Alert Service Bulletin 737-53A1255, Revision 2, dated August 7, 2012.

(j) Optional Inspections for Tear Strap Locations Only

As an option to confirm cracks found while doing the inspections required by paragraph (i) of this AD, do an open-hole inspection for cracking at the tear strap locations, in accordance with the Accomplishment Instructions of Boeing Alert Service Bulletin 737-53A1255, Revision 2, dated August 7, 2012.

(k) Terminating Action

(1) Accomplishing a repair of a crown lap joint in accordance with Boeing Alert Service Bulletin 737-53A1255, Revision 2, dated August 7, 2012, terminates the inspections required by paragraphs (g) and (i) of this AD for the repaired area only.

(2) Accomplishing the modification of the crown lap joints in accordance with any of the service bulletins specified in paragraphs (k)(2)(i), (k)(2)(ii), and (k)(2)(iii) of this AD terminates the inspections required by paragraphs (g) and (i) of this AD for the modified area only.

(i) Boeing Service Bulletin 737-53A1177, Revision 4, dated September 2, 1999.

(ii) Boeing Service Bulletin 737-53A1177, Revision 5, dated February 15, 2001.

(iii) Boeing Service Bulletin 737-53A1177, Revision 6, dated May 31, 2001.

(l) Exceptions

(1) Where paragraph 1.E., “Compliance,” of Boeing Alert Service Bulletin 737-53A1255, Revision 2, dated August 7, 2012, states a compliance time “from the

Revision 1 date of this service bulletin,” this AD requires a compliance time “after the effective date of this AD.”

(2) Where the “condition” column, in paragraph 1.E., “Compliance,” of Boeing Alert Service Bulletin 737-53A1255, Revision 2, dated August 7, 2012, specifies airplanes with certain flight cycles “at the Revision 1 date of this service bulletin,” for this AD the condition is for airplanes with corresponding flight cycles “as of the effective date of this AD.”

(m) Credit for Previous Actions

This paragraph provides credit for the actions required by paragraphs (g), (h), (i), and (j) of this AD, if those actions were performed before the effective date of this AD using Boeing Alert Service Bulletin 737-53A1255, Revision 1, dated November 7, 2011, which is not incorporated by reference in this AD.

(n) Alternative Methods of Compliance (AMOCs)

(1) The Manager, Seattle Aircraft Certification Office (ACO), FAA, has the authority to approve AMOCs for this AD, if requested using the procedures found in 14 CFR 39.19. In accordance with 14 CFR 39.19, send your request to your principal inspector or local Flight Standards District Office, as appropriate. If sending information directly to the manager of the ACO, send it to the attention of the person identified in the Related Information section of this AD. Information may be emailed to:

9-ANM-Seattle-ACO-AMOC-Requests@faa.gov.

(2) Before using any approved AMOC, notify your appropriate principal inspector, or lacking a principal inspector, the manager of the local flight standards district office/certificate holding district office.

(3) An AMOC that provides an acceptable level of safety may be used for any repair required by this AD if it is approved by the Boeing Commercial Airplanes Organization Designation Authorization (ODA) that has been authorized by the Manager,

Seattle ACO, to make those findings. For a repair method to be approved, the repair must meet the certification basis of the airplane, and the approval must specifically refer to this AD.

(4) AMOCs approved for paragraphs (a), (b), (c), (d), and (e) of AD 2002-07-08, Amendment 39-12702 (67 FR 17917, April 12, 2002) before the effective date of this AD, are approved for the corresponding requirements of paragraphs (g), (i), and (k) of this AD.

(5) As of the effective date of this AD, any AMOCs approved for paragraphs (g) and (i) of this AD are approved as AMOCs for the corresponding requirements of paragraphs (a), (b), (c), (d), and (e) of AD 2002-07-08, Amendment 39-12702 (67 FR 17917, April 12, 2002).

(o) Related Information

(1) For more information about this AD, contact Wayne Lockett, Aerospace Engineer, Airframe Branch, ANM-120S, FAA, Seattle Aircraft Certification Office, 1601 Lind Avenue SW., Renton, WA 98057-3356; phone: 425-917-6447; fax: 425-917-6590; email: wayne.lockett@faa.gov.

(2) For service information identified in this AD, contact Boeing Commercial Airplanes, Attention: Data & Services Management, P. O. Box 3707, MC 2H-65, Seattle, WA 98124-2207; telephone 206-544-5000, extension 1; fax 206-766-5680; Internet <https://www.myboeingfleet.com>. You may review copies of the referenced service

information at the FAA, Transport Airplane Directorate, 1601 Lind Avenue SW., Renton, WA. For information on the availability of this material at the FAA, call 425-227-1221.

Issued in Renton, Washington, on October 31, 2012.

Ali Bahrami,
Manager,
Transport Airplane Directorate,
Aircraft Certification Service.

[FR Doc. 2012-27141 Filed 11/06/2012 at 8:45 am; Publication Date: 11/07/2012]